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FORM PTO-1082

EXPRESS MAIL LABEL NO.: EL640511825US

**PATENT**

Attorney Docket No.: 254070-2

Date: August 24, 2000

BOX PATENT APPLICATION  
ASSISTANT COMMISSIONER FOR PATENTS  
Washington, D.C. 20231

Sir:

Transmitted herewith for filing is the patent application of:

Inventors: LINDA M. SMITH and DARREN D. LU

For: TARGETED MARKETING SYSTEM AND METHOD

Enclosed are:

18 Pages of Specification

6 Sheets of drawing (☒ formal ☐ informal)

☒ Combined Declaration and Power Of Attorney (facsimile copy of executed original). ☐ Will follow.

☒ Form PTO-1595 and an assignment of the invention to FaceCake, Inc. (facsimile copy of executed original)

☐ A certified copy of ☐ from which priority is claimed in the subject case pursuant to Rule 55b and 35 U.S.C. 119. ☐ Will follow.

☐ An associate Power of Attorney

☒ A verified statement to establish small entity status under 37 CFR 1.9 and 37 CFR 1.27 (facsimile copy of executed original).

☐ Information Disclosure Statement, Form PTO 1449 and ☐ prior art reference(s).

☐ Preliminary Amendment.

☒ General Authorization/Request to Petition for extension of time.

☒ Postcard

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|--------------|-----------|------|-----------|-------------------|------------------|----|------------------------------|-----------------------------|
| BASIC FEE    | 32        | -20= | 12        | X 9               | \$345.00         | OR |                              | \$690.00                    |
| TOTAL CLAIMS | 4         | -3=  | 1         | X 39              | \$108.00         | OR | X 18                         | \$-0-                       |
| INDEP CLAIMS |           |      |           | X+ 130            | \$ 39.00         | OR | X 78                         | \$-0-                       |
| MULTIPLE     |           |      |           |                   | \$-0-            | OR | + 260                        | \$-0-                       |
| DEP CLAIMS   |           |      |           |                   |                  |    | TOTAL:                       | \$                          |
| PRESENTED    |           |      |           | TOTAL =           | \$492.00         |    |                              |                             |

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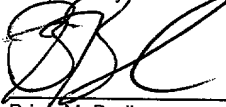
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Respectfully submitted,



Brian M. Berliner  
Registration No. 34,549

O'MELVENY & MYERS LLP  
400 So. Hope Street  
Los Angeles, CA 90071-2899  
(213) 430-6000

PATENT

Docket No.: 254070-2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: LINDA M. SMITH and DARREN D. LU

For: TARGETED MARKETING SYSTEM AND METHOD

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**CERTIFICATE OF MAILING**

BOX PATENT APPLICATION  
Assistant Commissioner for Patents  
Washington, D.C. 20231

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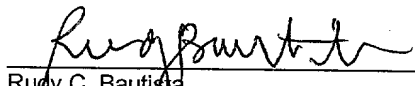
"EXPRESS MAIL" Mailing Label No.: EL640511825US

Date of Deposit: August 24, 2000

I hereby certify that an application for patent, including:

18 pages of Specification (which includes 32 claims and a one-page Abstract); 6 Sheets of formal Drawings; an executed Combined Declaration and Power of Attorney; a General Authorization/Request to Petition for Extensions of Time; a check in the amount of \$492.00 to cover the filing fee; an executed Assignment document and Form PTO-1595, including a check in the amount of \$40.00 to cover the assignment recordation fee; an executed Verified Statement Claiming Small Entity Status; a Transmittal Letter (Form PTO 1082); and Return Postcard are being deposited with the U.S. Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. § 1.10 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Box Patent Application, Washington, D.C. 20231.

Date of Deposit: August 24, 2000

  
\_\_\_\_\_  
Rudy C. Bautista

**VERIFIED STATEMENT CLAIMING SMALL ENTITY STATUS  
(37 C.F.R. 1.9(f) & 1.27(c)) - SMALL BUSINESS CONCERN**

**PATENT  
DOCKET NO: 264070-2**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants: Linda M. Smith, Darren D. Lu

Serial No.:

Filed:

Title: TARGETED MARKETING SYSTEM AND METHOD

I hereby declare that I am

☐ the owner of the small business concern identified below:

☒ an official of the small business concern empowered to act on behalf of the concern identified below:

Name of Small Business Concern: FACECAKE.COM, INC.

Address of Small Business Concern: 4803 Desert Drive  
Woodland Hills, CA 91364

I hereby declare that the above-identified small business concern qualifies as a small business concern as defined in 13 CFR 121.3-18 and reproduced in 37 CFR 1.9(d) for purposes of paying reduced fees under Sections 41(a) and (b) of Title 35, United States Code, to the United States Patent and Trademark Office, in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year; and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.

I hereby declare that rights under contract or law have been conveyed to, and remain with, the small business concern identified above with regard to the invention described in:

☒ the specification filed herewith with title as listed above.

☐ the application identified above.

If the rights held by the above-identified small business concern are not exclusive, each individual, concern or organization having rights in the invention is listed below and no rights to the invention are held by any person, other than the inventor, who would not qualify as an independent inventor under 37 CFR 1.9(c), if that person made the invention, or by any concern which would not qualify as a small business concern under 37 CFR (1.9(d), or a non-profit organization under 37 CFR(1.9(e).

Each person, concern or organization having any rights in the invention is listed below:

☒ No such person, concern or organization exists.

☐ Each such person, concern or organization is listed below.

Full Name:

Address:

☐ Individual

☐ Small Business Concern

☐ Nonprofit Organization

Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon or any patent to which this verified statement is directed.

Dated: 8/17/08

By: Linda M. Smith

Name: LINDA M. SMITH

Title: CEO

Address: 4803 Desert Drive, Woodland Hills, CA 91364

004380 " 26254960

## TARGETED MARKETING SYSTEM AND METHOD

### BACKGROUND OF THE INVENTION

#### 1. Field of the Invention

The present invention relates to targeted marketing, and in particular to systems and methods for personalizing marketing materials, advertisements, entertainment, educational materials, and other content to the individual preferences of Internet users.

#### 2. Description of Related Art

Targeted marketing through the Internet is well known in the art. Individuals who navigate the World Wide Web ("Web") portion of the Internet are frequently presented with advertisements, promotions, and other content (collectively "content") targeted to their demographic and psychographic attributes, and other individual preferences and characteristics. In a typical scenario, an advertiser, promoter or other entity (collectively "content provider") selects a set of target demographics and/or psychographics ("target profile") for its content and makes the content accessible to Internet users through a Web site. The Web site operator, or another affiliated entity, maintains a user profile for each of its registered (or otherwise identifiable) users. Each user profile includes data fields for storing known attributes of its associated user, which may include name, address, telephone number, e-mail address, gender, age, race, and other personal information. When an individual accesses a Web site that includes a plurality of targeted content, the individual's user profile is compared against the target profile for the available targeted content, and the targeted content having a target profile that best fits the individual is displayed to the individual on the Web page.

The effectiveness of targeted marketing often depends on the quantity and quality of data collected for each user. For example, a primary source of user data is an online survey or questionnaire. Many Web sites require new users to establish an online profile before permitting access to certain Web pages or services. Each new user is prompted to provide the user's name, address, telephone number, gender, age, e-mail address and other demographic information. However, many users are reluctant to provide such private information over the Internet and set up "dummy" profiles with false data. Further, users are often reluctant to fill out a lengthy

questionnaire that requires detailed answers, thus limiting the amount and type of information collected through this approach.

Additional user information is often collected by tracking the occurrence of certain user initiated events. For example, one common approach creates a log entry each time a user clicks through a displayed advertisement. Each user's online purchases made through the Web site may also be logged in the user profile. These events may be tracked through server-based programs and/or software executing on the user's computer. The data collected through these approaches is typically limited to a small subset of the user's actual online behavior, and attempts to correlate this behavioral data with user psychographics have proven to be inadequate.

In view of these and other limitations in the prior art, there is a need for a targeted marketing system and method that collects detailed and accurate user profile data and matches user profile data to target demographic and psychographic attributes in a meaningful manner. Further, there is a need for a way to use such collected data to create and provide advertisements, promotions or other content that will attract the user's attention.

#### SUMMARY OF THE INVENTION

The present invention provides a system and method for delivering targeted marketing to online users. In a preferred embodiment, psychometric information and a photographic likeness of a user are collected for use in personalizing marketing, advertising, entertainment, educational materials and other content.

In a preferred embodiment, at least one Web server and at least one network device are connected through a network, such as the Internet. The Web server may be any computing device that provides World Wide Web services on the Internet, and the network device may be any device that is adapted to access and navigate Web pages from the Web server through the Internet. Each user of the Web server registers through a registration Web page, which queries the user for basic demographic information such as name, address, telephone number, age, gender and income. The user registration includes the creation of a user profile, which is used by the Web server to store data associated with the registered user.

A preferred user profile includes initial survey responses provided by the user during registration, data describing the user's Web browsing habits and Web purchasing patterns, a photographic likeness of the user, context-specific survey responses and random survey

responses. The user profile is analyzed to prepare a summary of the user's personality, buying motives, interests, activities, opinions and other characteristics.

The user's actions on each Web page provide insights into the user's preferences for the content available on the Web page. Each Web page includes one or more pieces of content, which may include text articles, banner ads, pictures, videos, audio files, etc. The Web site operator, advertiser, or other entity may select zero or more market segmentation variables to be associated with each piece of content, and assign metrics to be given upon the occurrence of each action. The assigned metric value depends on various factors such as the user action and the number of times this user action has been recorded for the particular content. The data stored in the user profile, such as the user's demographic and psychographic data, may also include an associated confidence factor that reduces the value of a metric, or the weight given to a data element, over time.

In a preferred embodiment, the user is encouraged to transmit the user's photographic likeness to the Web server for storage in the user's profile. Each image preferably includes a picture of the user's head and shoulders against a solid background. The photographic likeness is processed by converting the image to a standard image format, and then identifying facial features from the image. Additional data is also collected from the picture for storage in the user profile such as the user's hair color, eye color, skin tone, face shape, and other information that may be derived from the photographic image.

Context-specific survey questions and random survey questions are asked periodically to verify weak data elements or supply missing data elements. These survey questions are less intrusive than a lengthy questionnaire and can be used throughout the Web site to gather information. In a preferred embodiment, the user profiles are analyzed in view of the target demographics and psychographics of the available content to identify data elements that have generally weak confidence factors or are otherwise deficient for use in accurately targeting the available content. The market researcher is then notified of the deficiencies in the data and a search is conducted to locate content having an associated market segmentation variable that relates to the deficient data element. Next, the market researcher is prompted to develop a context-specific survey question that relates to the content, the answer to which supplies the deficient data element. The market researcher is also prompted to develop a random survey

question, the answer to which supplies to the deficient data element. Random questions may be presented to the user periodically, even while the user is viewing unrelated content.

The collected data in the user profile is also used to target specific content to the user. When selecting content to display to the user, the Web server automatically selects the content with target demographics and psychographics that best matches the user's data index calculated from the user profile. In addition, on certain Web pages, content that best matches the user's data index may be displayed more prominently to the user than other content displayed on the Web page.

The user profile may also be used to create personalized advertisements, marketing materials, entertainment, or educational materials for an individual user. For example, the user's likeness may be altered to reflect the approximate look of specific jewelry, accessories, hairstyles, clothing, and other items. The altered image may then be displayed to the user as part of a Web page, print advertisement, email, or other content. Clothing may be illustrated on a body image that closely matches the user's body measurements (or clothing sizes) recorded in the user profile. The user's likeness may also be altered to simulate the user in different locations, anatomical poses, and video or audio situations.

A more complete understanding of the Targeted Marketing System and Method will be afforded to those skilled in the art, as well as a realization of additional advantages and objects thereof, by a consideration of the following detailed description of preferred embodiments. Reference will be made to the appended sheets of drawings, which will first be described briefly.

#### BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 illustrates a preferred environment for operating the present invention;

Fig. 2 is a block diagram illustrating the components of a preferred web server;

Fig. 3 is a block diagram illustrating the components of a preferred network device;

Fig. 4 illustrates a preferred embodiment of user profile data;

Fig. 5 illustrates a preferred database table used for logging user initiated events;

Fig. 6 illustrates the assignment of metric values to user initiated events in a preferred embodiment;

Figs. 7a-b illustrate a preferred processing of a photographic likeness;

Fig. 8 is a flow diagram illustrating the preferred steps in creating context-sensitive and random survey questions;

Fig. 9 is a flow diagram illustrating the preferred step of analyzing user profile data; and

Fig. 10 illustrates one example of the incorporation of a photographic likeness into content.

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The present invention provides a system and method for delivering targeted marketing to online users. In a preferred embodiment, psychometric information and a photographic likeness of a user are collected for use in personalizing marketing, advertising, entertainment and educational materials, and other content (collectively "content"). In the detailed description that follows, like element numerals are used to describe like elements illustrated in one or more of the aforementioned figures.

A preferred embodiment of the present invention is illustrated in Fig. 1, and includes at least one Web server 10 and at least one network device 30 connected through a network 20, such as the Internet. The Web server 10 may be any computing device that provides World Wide Web services on the Internet. As illustrated in Fig. 2, the Web server 10 preferably includes a processor 12, a program memory 14 for storing program instructions, and a data storage 16 for storing targeted content, Web pages, user profile data and other targeted marketing information. The features of the Web server 10 described herein may be embodied on a plurality of computing devices, which may reside in a plurality of locations. The network device 30 is adapted to access and navigate Web pages from the Web server 10 through the Internet 20, and may include a personal computer, a Wireless Application Protocol telephone, or an Internet appliance. As illustrated in Fig. 3, the network device 30 preferably includes a processor 32, a memory 34, a display 36 and an input device 38 such as a mouse and a keyboard.

In operation, a user of the network device 30 accesses Web pages stored on the Web server 10 through a browser application. As known in the art, the Web server 10 may be accessed by entering its Uniform Resource Locator ("URL") into the Web browser. The Web server 10 preferably includes a home page providing links to other user accessible Web pages on the Web server 10, a registration Web page for collecting user profile information from new users, a login Web page for identifying registered users, and stored content. The stored content



may include articles, pictures, advertisements, promotions, products and services offered for sale, and other targeted content. In a preferred embodiment, each user is required to register with Web server 10 in order to gain access to certain content stored on the Web server 10. A new user is registered through the registration page, which queries the user for basic demographic information such as name, address, telephone number, age, gender and income. In subsequent visits to the Web server 10, the user may be identified by the Web server 10 through the use of a user name and password, through cookies stored on the network device 30, or any other identification method that links the user to stored data associated with the user.

The user registration includes the creation of a user profile, which is used by the Web server 10 to store data associated with the registered user. As illustrated in Fig. 4, a preferred user profile 50 includes initial survey responses 52 provided by the user during registration, data describing the user's browsing habits 54 and purchasing patterns 56, a photographic likeness of the user 58, context-specific survey responses 60 and random survey responses 62. The data collected in the user profile 50 is analyzed by the Web server 10 to identify the user's preferences, purchasing habits and computer operation proficiency. It is contemplated that multiple user profiles 50 may also be analyzed to identify trends and spending habits of the aggregate user group.

In a preferred embodiment, after a user logs onto the Web server 10, the user's actions are tracked until the user logs off or leaves the Web site. The user may be tracked by detecting user initiated requests at the Web server 10, by detecting user initiated events through software executing on the user's network device 30 and then transmitting the logged events to the Web server 10, or by other methods known in the art. Fig. 5 illustrates a preferred database table for storing the data describing the user's browsing habits 54. The table includes a sequence of events and the date and time at which each event was detected. The user initiated events that may be tracked include, but are not limited to, selecting a link to another Web page, clicking through an advertisement and printing the current Web page. The user's Web purchases 56 may be tracked in a similar manner, i.e., by logging the date, time and amount of the purchase, an item identifier, the quantity purchased, payment method and shipping address.

The data describing the user's browsing habits 54, along with the other data from the user profile 50, is analyzed to prepare a profile of the user's personality, buying motives, interests, activities, opinions and other characteristics. In a preferred embodiment, market segmentation

variables are pre-selected by the content providers based on the target demographics and psychographics each content provider is attempting to reach. The user profile 50 is then analyzed to determine user values for each of these pre-selected market segmentation variables. For example, the content provider may target its content to a particular Value and Lifestyle Survey (VALS) category. As known in the art, VALS places consumers into one of nine mutually exclusive lifestyle categories based on their psychology and key demographics. These categories have been found to be strong predictors of a variety of consumer preferences in products, services, and media. Other psychographic market segmentation variables may also be used, such as variables describing personality traits (e.g., reserved v. outgoing; dull v. bright; trusting v. suspicious).

A preferred analysis of the data describing the user's browsing habits 54 will now be described with reference to Fig. 6. Each Web page 70 includes one or more pieces of content 72, which may include text articles, banner ads, pictures, videos, audio files, etc. The user's actions 74 on the Web page 70 provide insights into the user's preferences for the content 72 available on the Web page 70. For example, if the user immediately hits the "Back" button on the user's browser when the Web page 70 is displayed (e.g., the time spent on the Web page 70 is less than a predetermined value X), it could indicate that the user has little interest in the displayed content 72. The Web site operator, advertiser, or other entity may select zero or more market segmentation variables 76 to be associated with each piece of content 72. This selection is preferably performed manually by a market researcher to determine the market segmentation variables 76 to associate with the content 72, and the values to give the metrics 78 upon the occurrence of each action. In a preferred embodiment, each market segmentation variable has a metric value from 0 to +100 that indicates the value of the user action for that market segmentation variable. The assigned metric value may depend on various factors such as the user action and the number of times this user action has been recorded for the particular content.

The data stored in the user profile 50, such as the user's demographic and psychographic data, may also include an associated confidence factor. In a preferred embodiment, the confidence factor is a decay function that reduces the value of a metric, or the weight given to a data element, over time. A market researcher preferably sets the confidence factor for each data element based on the type of data and the researcher's confidence in the data source. For example, there may be a high level of confidence in a residential address entered by a user for

the delivery of items purchased online. In such a scenario the market researcher may remain confident in the accuracy of the address more than one year from the date of entry, and may set the confidence in the data to be reduced 10% every year. The market researcher may have a much lower level of confidence in other data, for example, the user's "favorite movie." Because  
5 a user's favorite movie may change frequently over time, the market researcher may set the confidence level to be reduced more often, for example, a reduction of 50% every three months.

As discussed above, the user is encouraged to transmit the user's photographic likeness  
58 to the Web server 10 for storage in the user's profile 50. If the photographic likeness 58 is a computer graphics file (e.g., JPEG or GIF) then the user may email or otherwise transmit the  
10 graphics file to the Web server 10. In a preferred embodiment, the user may alternatively send a photograph to the Web site operator who will create a digital image of the photograph for storage in the user profile. The photographic likeness 58 is processed according to the preferred steps illustrated in Fig. 7a. In Step 80, the photographic image is converted to a standard image format. In the preferred embodiment, each image includes a picture of the user's head and  
15 shoulders, against a solid background, as illustrated in Fig. 7b. This step may include cropping the image and changing the file size, image dimensions, number of colors and file type. In Step 82, the features of the face in the photographic likeness 58 are identified. This step may be performed manually by a graphics editor, or automatically through facial feature recognition software known in the art. In the preferred embodiment, the location of the user's eyes, eyelids, cheeks, ears, lips, neckline, hairline and other facial features are identified on the two-  
20 dimensional image and stored in the user profile 50. In Step 84, additional data is collected from the picture for storage in the user profile 50. For example, the user's hair color, eye color, skin tone, face shape, and other information that may be manually determined from the photographic image and recorded in the user profile 50.

25 Context-specific survey questions and random survey questions are asked periodically to verify weak data elements or supply missing data elements. These survey questions are less intrusive than a lengthy questionnaire and are preferably used throughout the Web site to gather needed information. A preferred embodiment for the implementation of context-specific and random survey questions is illustrated in Fig. 8. First, in Step 90, the user profiles are analyzed  
30 in view of the target demographics and psychographics of the available content to identify data elements that have generally weak confidence factors or are otherwise deficient for use in

accurately targeting the available content. In a preferred embodiment, this identification of deficient data elements is based on each element's statistical reliability. The market researcher is notified of the deficiencies in the data in Step 92. For each deficient data element, a search is conducted in Step 94 to locate content having an associated market segmentation variable that relates to the deficient data element. In Step 96, the market researcher is prompted to develop a context-specific survey question that relates to the content, the answer to which supplies the deficient data element. For example, if a user is browsing for a pair of shoes, a question asking for the user's shoe size (i.e., the deficient data in this example) would appear to the user as a helpful shoe finding aid, while providing the deficient data about the user. Such web-content refinement inquiries may be used to query for needed information in a relatively non-intrusive manner and will often yield a more accurate user response than other data collection methods. In a preferred embodiment, the context-specific survey question is presented to the user in a new browser window when the associated content is displayed to the user. In Step 98, the market researcher is prompted to develop a random survey question, the answer to which supplies the deficient data element. Random questions may be presented to the user periodically, even while the user is viewing unrelated content.

The number of survey questions, both context-sensitive and random, presented to the user is preferably limited to avoid overburdening the user. In a preferred embodiment, the number of survey questions asked of the user is limited by allowing a predetermined amount of time to pass between each survey question. For example, context-sensitive questions, which are considered less intrusive to the user than random questions, may be skipped until after the passing of a first predetermined interval of time, and random questions, which are considered more intrusive to the user, may be asked after the passing of a second predetermined interval of time, which is longer than the first predetermined interval of time.

Through the data collection methods described above, the user profile 50 may include the user's personal contact information and demographic information, two or three dimensional images of the user, audio of the user, video of the user, the user's body measurements, purchasing habits, purchasing history, entertainment preferences, lifestyle habits, political beliefs, affiliations, religious beliefs, opinions about specific marketing, advertising, entertainment or educational materials, opinions about current news and cultural issues, web surfing habits, and other information that describes the user. It will be appreciated that the use of

the data collection procedures described herein does not preclude the collection of data through other methods, such as telephone surveys.

The collected data in the user profile 50 is used to target specific content to the user as illustrated in Fig. 9 (and as discussed above with reference to Fig. 6). In Step 110, each data item is assigned metrics and algorithms, and the results are used in Step 112 to create a data index identifying the user's preferences, habits, etc., with respect to each particular target demographic or psychographic type being used by the content providers. When selecting content to display to the user, the Web server 10 will automatically select the content with target demographics and psychographics that best matches the user's data index. In addition, on certain Web pages, content that best matches the user's data index is displayed more prominently to the user than other content displayed on the Web page. For example, an advertisement may be prominently displayed to certain targeted users on the top of a Web page and placed on the bottom of the screen for other users. Further, Web links displayed on the Web page may be arranged in an order that best illustrates the user's preferences for the links.

In the preferred embodiment, the collected and analyzed data, including the psychographic information and the user's photographic likeness, are also used to create personalized advertisements, marketing materials, entertainment, or educational materials for an individual user. The customer may be identified by reading a client identifier on the customer's machine, in the form of a cookie, a machine authentication code and IP address, a username and login, or any other method as known in the art. An example of a targeted promotion is illustrated in Fig. 10. A Web page 120 includes an article 122 describing the latest trends in eyeglasses, and the photographic likeness of the user 124. Using user profile information, a pair of eyeglasses is selected from the article that best match the user's skin tone, face shape and purchasing habits. The eyeglasses 126 are incorporated into the image allowing the user to see how the eyeglasses would look on the user's face. The eyeglasses are placed on the user's face in accordance with the location of the user's eyes, nose and ears, identified when the photographic likeness was first processed. The user may also be given the option of viewing other eyeglasses on the image.

In another contemplated embodiment, the user's photographic likeness is used to present cosmetic recommendations to the user. A fashion consultant can view the photographic likeness and select makeup colors that best suit the user's facial features. The cosmetics are then applied

to the user's image as part of a personalized advertisement for the cosmetics. The advertisement may include an interface allowing the user to select and view different shades and colors, and make online purchases. In other embodiments, the user's likeness may be altered to reflect the approximate look of specific jewelry, accessories, hairstyles, clothing, and other items. Clothing  
5 may be illustrated on a body image that closely matches the user's body measurements (or clothing sizes) recorded in the user profile. The user's likeness may also be altered to simulate the user in different locations, anatomical poses, and video or audio situations. For example, an advertisement for a ski vacation may include an action image of the user skiing down a mountain.

10 Having thus described a preferred embodiment of the Targeted Online Marketing System and Method, it should be apparent to those skilled in the art that certain advantages of the within described system have been achieved. It should also be appreciated that various modifications, adaptations, and alternative embodiments thereof may be made within the scope and spirit of the present invention. The scope of the present invention is defined by the following claims.

## CLAIMS

### What is claimed is:

1. A computer-implemented method for targeting marketing content to an online user,  
5 each content having an associated target profile, comprising the steps of:

collecting data describing the user in a user profile, the data including a photographic  
likeness of the user;

comparing the user profile, including information derived from the user's photographic  
likeness, to the target profile associated with each content; and

10 presenting the user with content based on the comparison.

2. The computer-implemented method of Claim 1 further including the step of  
dynamically creating content for the online user based on the user profile, wherein the  
dynamically created content includes a portion of the user profile data.

3. The computer-implemented method of Claim 2 wherein the dynamically created  
content includes the photographic likeness of the user.

4. The computer-implemented method of Claim 3 wherein the photographic likeness is  
altered to incorporate a portion of the content into the photographic likeness for display to the  
user.

5. The computer-implemented method of Claim 4 wherein the step of collecting data  
includes the step of identifying the location of the user's facial features in the photographic  
25 likeness.

6. The computer-implemented method of Claim 5 wherein the step of identifying facial  
features includes identification of the user's eyes, nose, lips, ears and neckline.

7. The computer-implemented method of Claim 5 wherein the step of collecting data further includes the step of identifying facial feature characteristics including skin tone and hair color.

5 8. The computer-implemented method of Claim 1 wherein the step of collecting data includes the step of tracking the user's browsing habits.

9. The computer-implemented method of Claim 1 wherein the step of collecting data includes the step of receiving the user's response to context-specific survey questions.

10 10. The computer-implemented method of Claim 7 wherein the photographic likeness is altered to simulate the application of cosmetics on the photographic likeness.

11. The computer-implemented method of Claim 10 wherein the color of the cosmetics is selected based on the identified facial feature characteristics.

12. The computer-implemented method of Claim 5 wherein the photographic likeness is altered to simulate the wearing of jewelry.

13. The computer-implemented method of Claim 1 further comprising the steps of:  
assigning metrics to the collected data; and  
creating a data index for the user based on the assigned metrics, whereby the data index identifies the user's preferences and purchasing habits.

14. The computer-implemented method of Claim 13 further including the step of applying a confidence factor to each metric, the confidence factor causing the metric value to decay over time.



15. A system for targeting marketing content to a plurality of online users comprising:  
a data storage including:

a plurality of user profiles, each user profile including data describing a user's  
demographic and psychographic characteristics and a photographic likeness of the user;

a plurality of online content;

a plurality of target profiles, each target profile having an associated content;

a processor; and

a program memory connected to the processor, the program memory having program  
instructions stored therein for instructing the processor to perform steps comprising:

comparing a user profile, including information derived from the associated user's  
photographic likeness, to the target profiles; and

presenting the user with the content associated with the target profiles.

16. The system of Claim 15 wherein the program memory further includes instructions  
for instructing the processor to perform the step of dynamically creating content for the online  
user based on the user profile, wherein the dynamically created content includes the  
photographic likeness of the user.

17. The system of Claim 16 wherein the program memory further includes instructions  
for instructing the processor to perform the step of altering the photographic likeness to  
incorporate a portion of the content into the photographic likeness for display to the user.

18. The system of Claim 15 wherein the program memory further includes instructions  
for instructing the processor to perform the step of identifying the location of the user's facial  
features in the photographic likeness.

19. The system of Claim 18 wherein the photographic likeness is altered to simulate the  
application of cosmetics on the photographic likeness.

20. The system of Claim 15 wherein the program memory further includes instructions for instructing the processor to perform the steps of:

assigning metrics to the user profile data; and

creating a data index for the user based on the assigned metrics, whereby the data index identifies the user's preferences and purchasing habits.

21. A method for targeting marketing content to a user having an associated user profile, each targeted content having an associated target profile defined by market segmentation variables, comprising the steps of:

assigning metrics to data elements in the user profile, each metric representing either an incremental or decremental change in a market segmentation variable, and including a confidence factor that decays over time;

calculating a user index by applying the assigned metrics to the market segmentation variables;

comparing the user index to the target profile associated with each content; and

presenting the user with content based on the step of comparing.

22. The computer-implemented method of Claim 21 further including the step of dynamically creating content for the online user based on the user profile, wherein the dynamically created content includes a portion of the user profile.

23. The computer-implemented method of Claim 21 wherein the user profile includes a photographic likeness of the user, and wherein the step of assigning metrics includes assigning metrics to information derived from the user's photographic likeness.

24. The computer-implemented method of Claim 23 wherein the photographic likeness is altered to incorporate a portion of the content into the photographic likeness for display to the user.

25. The computer-implemented method of Claim 24 wherein the photographic likeness is altered to simulate the application of cosmetics on the photographic likeness.

26. The computer-implemented method of Claim 24 wherein the photographic likeness is altered to simulate the wearing of clothing.

5 27. A method for targeting marketing content to an online user, each content having an associated target profile including at least one market segmentation variable and each online user having an associated user profile including a plurality of data elements, comprising the steps of:

collecting data describing the user in the user profile, the data including responses to context-sensitive questions;

10 comparing the user profile, including information derived from the context-sensitive questions, to the target profile associated with each content; and

presenting the user with content based on the comparison.

28. The method of Claim 27 further comprising the steps of:

15 identifying at least one deficient data element from the user profile;

identifying content having an associated market segmentation variable that relates to the deficient data element; and

20 creating a context-sensitive question based on the identified content, wherein the answer to the context-sensitive question is collected in the deficient data element.

29. The method of Claim 28 further comprising the step of dynamically creating content for the online user based on the user profile, wherein the dynamically created content includes a portion of the user profile.

25 30. The method of Claim 29 wherein the user profile includes a photographic likeness of the user.

31. The method of Claim 30 wherein the photographic likeness is altered to incorporate a portion of the content into the photographic likeness for display to the user.

32. The method of Claim 31 wherein the photographic likeness is altered to simulate the application of cosmetics on the photographic likeness.

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## TARGETED MARKETING SYSTEM AND METHOD

### ABSTRACT

5 A computer-implemented method for targeting marketing content to an online user, includes the  
steps of collecting data describing the user in a user profile, comparing the user profile with a  
target profile and presenting the user with content based on the comparison. The user profile  
includes a photographic likeness of the user, as well as information derived from the user's  
photographic likeness. Certain content may be dynamically created for the user based on the  
user profile and may include the photographic likeness of the user, which may be altered to  
10 incorporate a portion of the content into the photographic likeness. In this manner, personalized  
advertisements for cosmetics, jewelry, clothing and other items may be created. The user profile  
also includes data describing the user's browsing habits and responses to context-specific survey  
questions. In one embodiment, metrics are assigned to the user profile data, and a data index  
15 identifying the user's preferences and purchasing habits is calculated for the user based on the  
assigned metrics. Each metric may also have an associated confidence factor, which causes the  
metric value to decay over time.

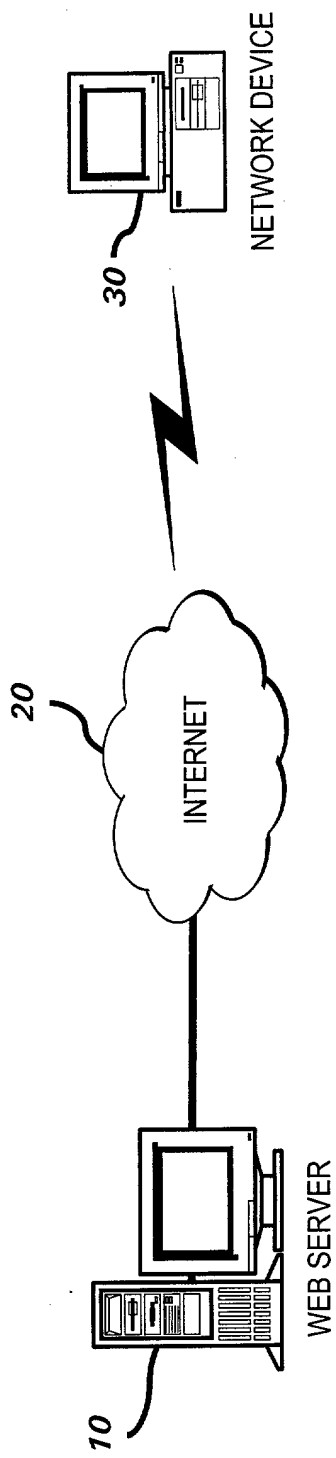


FIG. 1

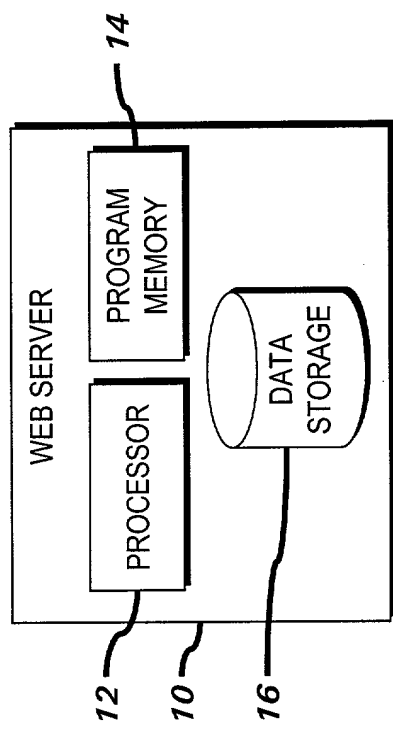


FIG. 2

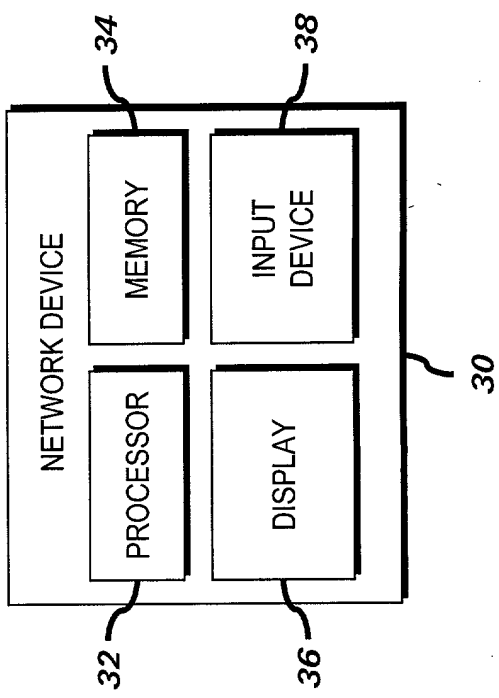


FIG. 3

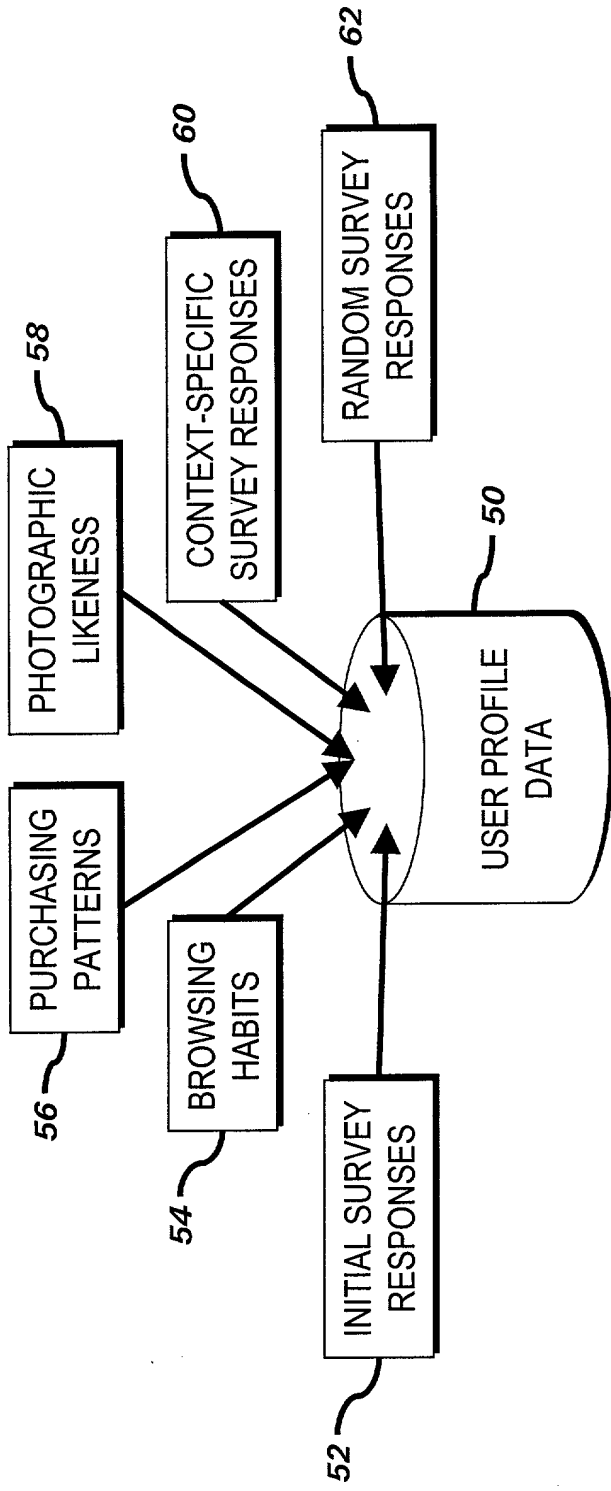


FIG. 4

| Event                    | Date            | Time       |
|--------------------------|-----------------|------------|
| Go to Web Page A         | August 22, 2000 | 12:01 p.m. |
| Click Link to Web Page B | August 22, 2000 | 12:05 p.m. |
| Click Link to Web Page C | August 22, 2000 | 12:05 p.m. |
| Click through Ad D       | August 22, 2000 | 12:16 p.m. |
| Click link to Web Page E | August 22, 2000 | 12:17 p.m. |

FIG. 5

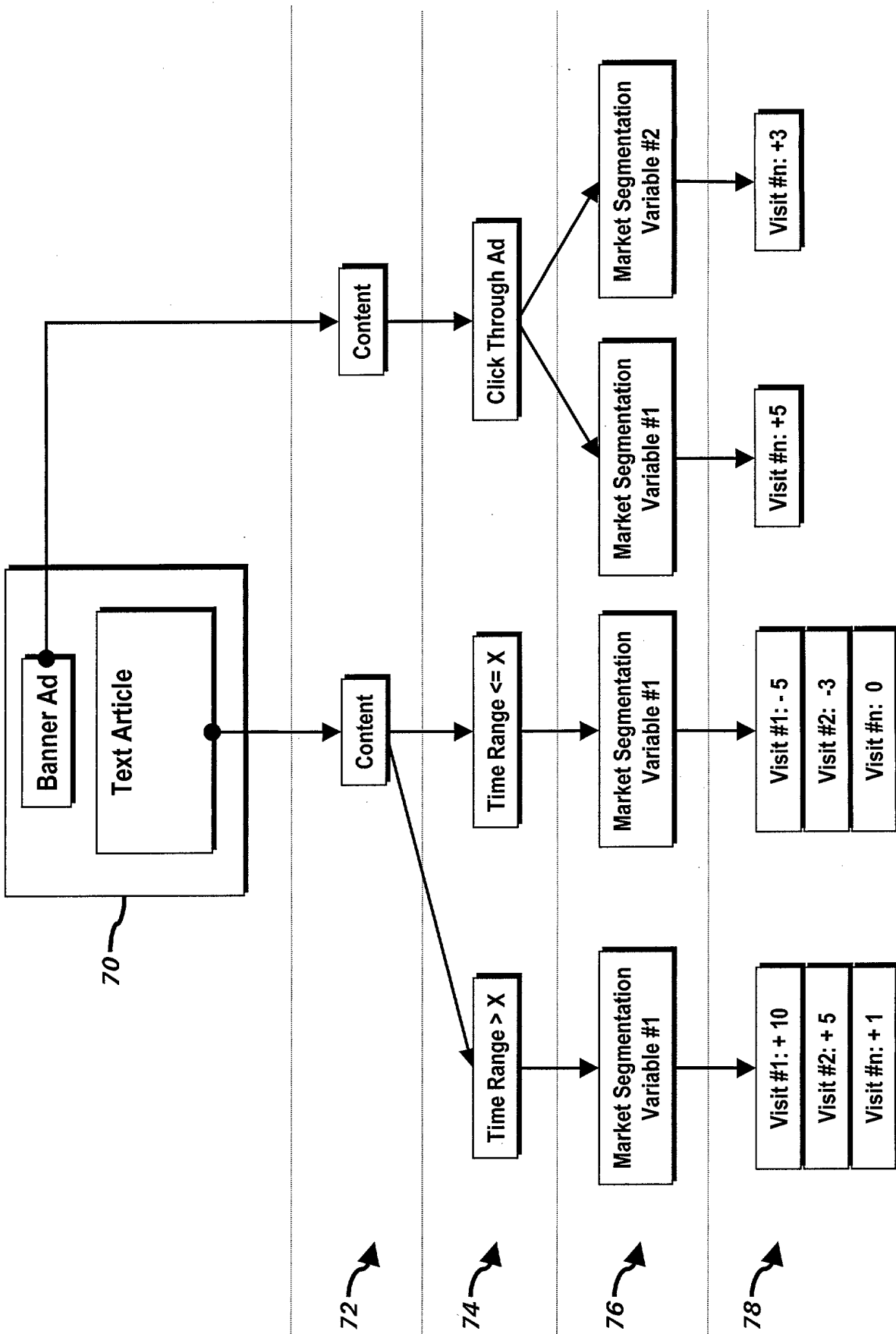


FIG. 6



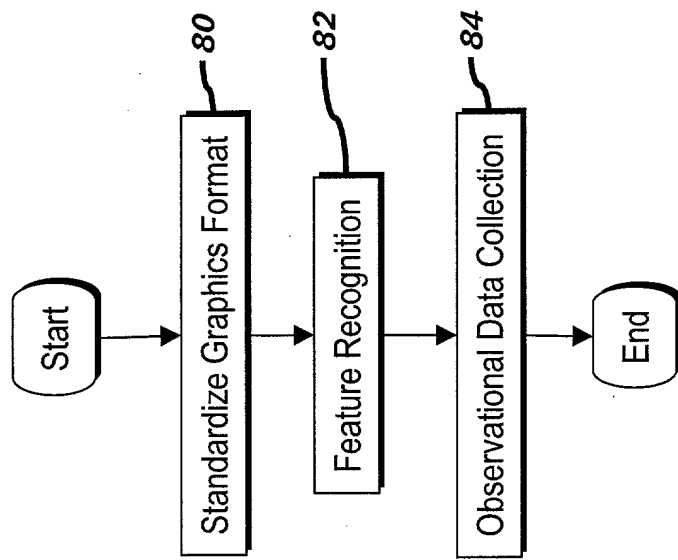


FIG. 7a

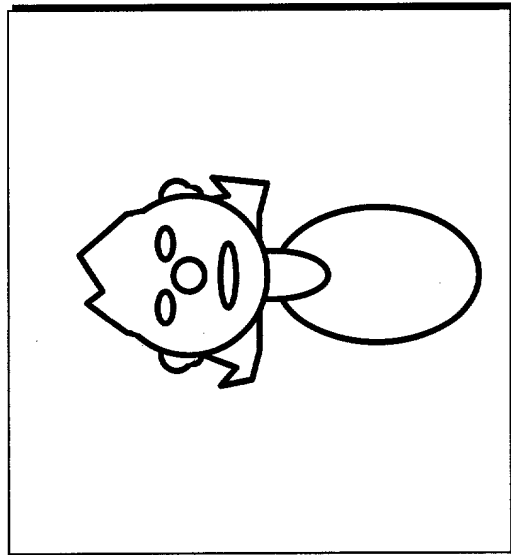


FIG. 7b

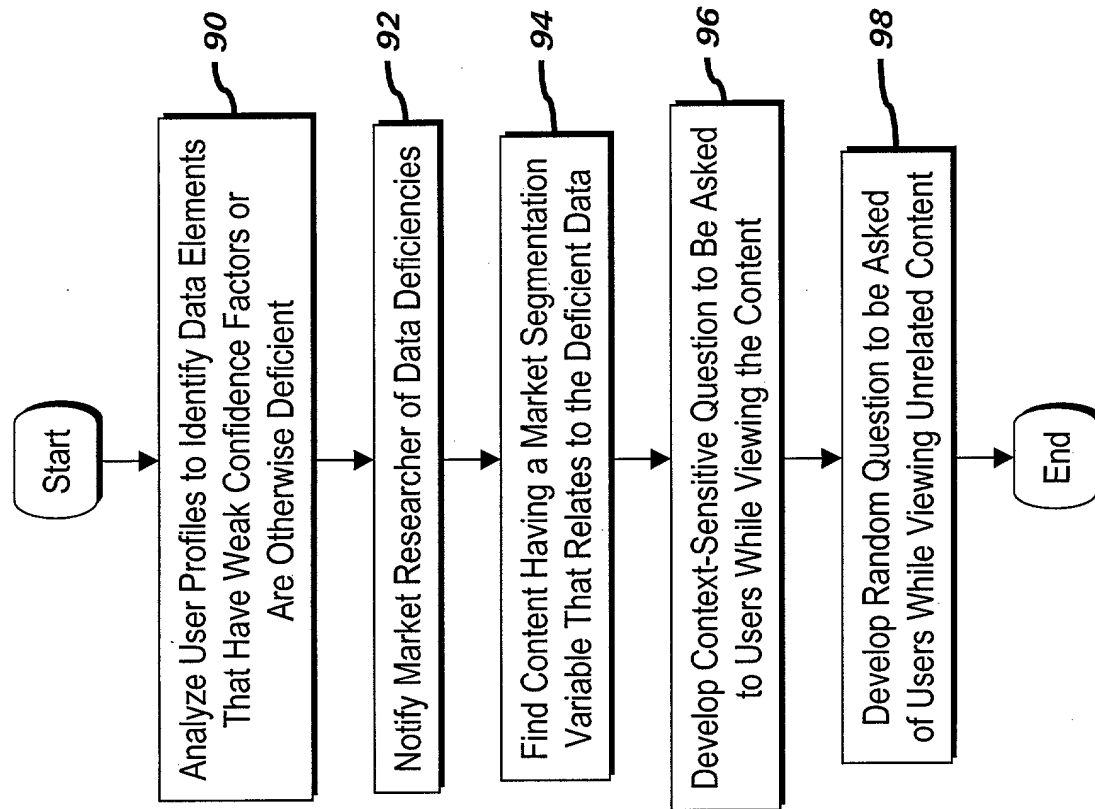


FIG. 8

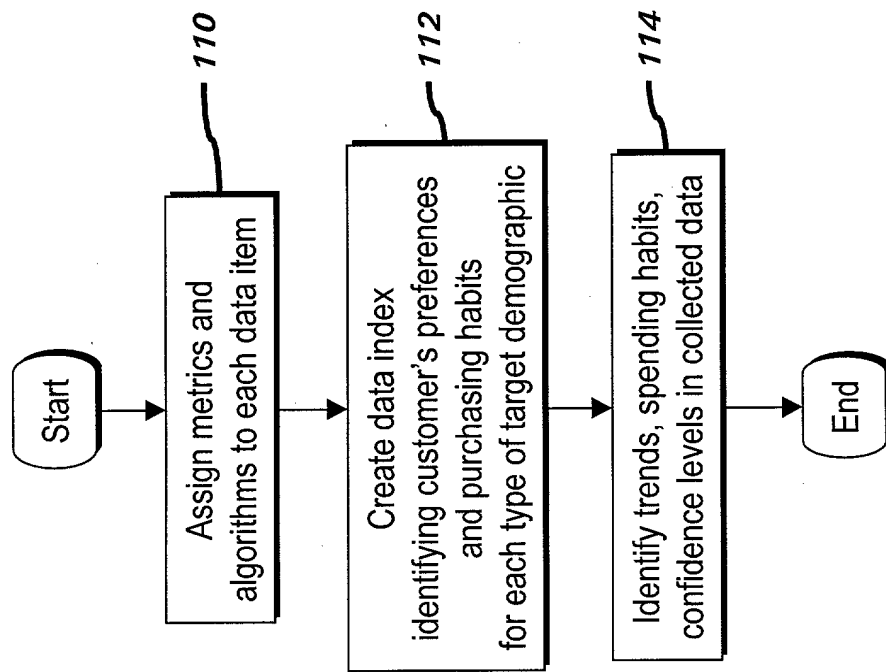


FIG. 9

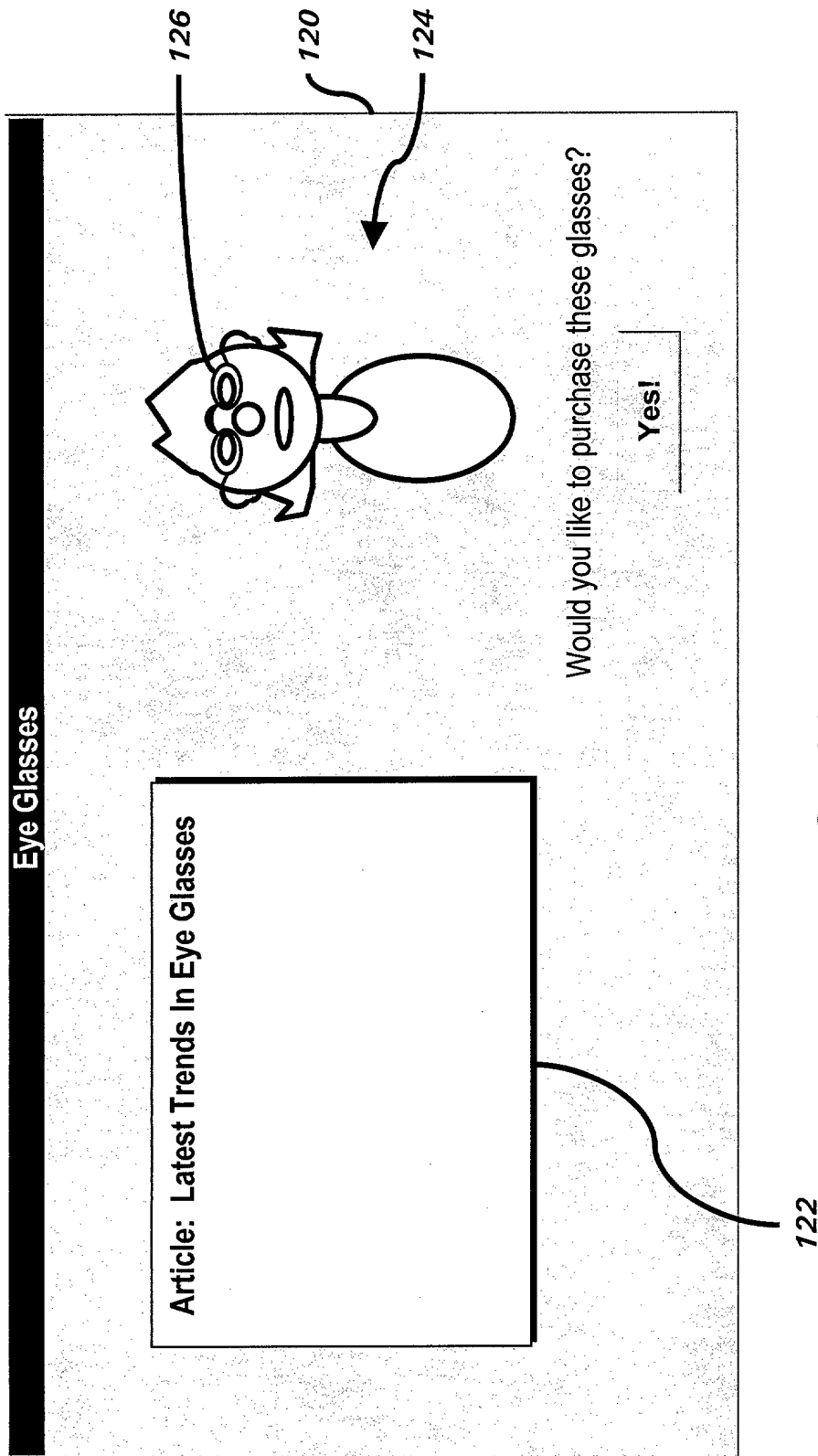


FIG. 10

## COMBINED DECLARATION FOR PATENT APPLICATION &amp; POWER OF ATTORNEY

DOCKET NO.: 264070-2

As a below named inventor, I hereby declare that:

The information given herein is true:

My residence, post office address and citizenship are as stated below next to my name;  
 I BELIEVE I AM THE ORIGINAL, FIRST AND SOLE INVENTOR (If only one name is listed below) OR AN ORIGINAL, FIRST AND JOINT INVENTOR (If plural names are listed below) OF THE SUBJECT MATTER WHICH IS CLAIMED AND FOR WHICH A PATENT IS SOUGHT ON THE INVENTION ENTITLED:

## TARGETED MARKETING SYSTEM AND METHOD

the specification of which (check only one item below):

- ☒ is attached hereto;  
☐ was filed on \_\_\_\_\_ as United States  
 Application Serial No. \_\_\_\_\_  
 and was amended on \_\_\_\_\_ (if applicable).  
☐ was filed on \_\_\_\_\_ as PCT International  
 Application Serial No. \_\_\_\_\_  
 and was amended under PCT Article 19 \_\_\_\_\_ (if applicable).

I hereby state that I have reviewed and understand the content of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations Section 1.56(a).

I hereby claim the benefit under Title 35, United States, §119(e) of any United States provisional application(s) listed below.

(Application Number)

(Filing Date)

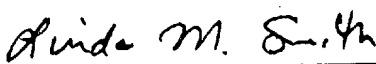
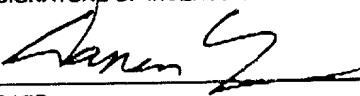
I hereby claim foreign priority benefits under Title 35, United States Code, Section 119 of any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT International application(s) designating at least one country other than the United States of America having a filing date before that of the application(s) on which priority is claimed.

FOREIGN APPLICATION(S), IF ANY, FILED WITHIN 12 (6 if a Design) MONTHS PRIOR TO THE FILING DATE OF THIS APPLICATION THE PRIORITY OF WHICH WHERE PERMITTED IS HEREBY CLAIMED UNDER 35 U.S.C. SEC. 119.

| COUNTRY | APPLICATION OF NUMBER | DATE OF FILING<br>(day, month, year) | DATE OF ISSUE<br>(day, month, year) | PRIORITY CLAIMED             |                             |
|---------|-----------------------|--------------------------------------|-------------------------------------|------------------------------|-----------------------------|
|         |                       |                                      |                                     | <input type="checkbox"/> yes | <input type="checkbox"/> NO |
|         |                       |                                      |                                     | <input type="checkbox"/> yes | <input type="checkbox"/> NO |
|         |                       |                                      |                                     | <input type="checkbox"/> yes | <input type="checkbox"/> NO |

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) or PCT International application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56(a) which occurred between the filing date of the prior application(s) and the national or PCT International filing date of this application.

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| COMBINED DECLARATION FOR PATENT APPLICATION & POWER OF ATTORNEY - Continued                                                                                                                                                                                                                                                                                                                                                                                                                                      |                         |                                                                                     |  |                        | DOCKET NO: 704880-2                                         |                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------------------------------------------------------------------------------------|--|------------------------|-------------------------------------------------------------|----------------------------------|
| U.S. APPLICATION NO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                         | U.S. FILING DATE                                                                    |  | PATENTED               | PENDING                                                     | ABANDONED                        |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                         |                                                                                     |  |                        |                                                             |                                  |
| PCT APPLICATIONS DESIGNATING THE U.S.                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                         |                                                                                     |  |                        |                                                             |                                  |
| PCT APPLICATION NO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                         | PCT FILING DATE                                                                     |  | U.S. SERIAL NUMBERS    |                                                             |                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                         |                                                                                     |  |                        |                                                             |                                  |
| POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or Agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.<br>Brian M. Berliner Reg. No. 34,648; Jonathan A. Jaech, Reg. No. 41,091; Dennis R. Gallagher, Reg. No. 42,663; Amar L. Thakur, Reg. No. 43,868; Jimmy M. Shin, Reg. No. 46,163, of O'MELVENY & MYERS LLP, 400 South Hope Street, Los Angeles, California 90071-2899                          |                         |                                                                                     |  |                        |                                                             |                                  |
| Send correspondence to                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         | O'MELVENY & MYERS LLP<br>400 South Hope St.<br>Los Angeles, CA 90071-2899           |  |                        | Direct Phone Calls To:<br>Brian M. Berliner<br>213-430-6000 |                                  |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | FULL NAME OF INVENTOR   | LAST NAME<br>SMITH                                                                  |  | FIRST NAME<br>Linda    |                                                             | MIDDLE NAME<br>M.                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | RESIDENCE & CITIZENSHIP | CITY<br>Woodland Hills                                                              |  | STATE<br>CA            |                                                             | COUNTRY OF CITIZENSHIP<br>U.S.A. |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | POST OFFICE ADDRESS     | STREET<br>4603 Desert Drive                                                         |  | CITY<br>Woodland Hills |                                                             | STATE<br>CA<br>ZIP CODE<br>91364 |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | FULL NAME OF INVENTOR   | LAST NAME<br>LU                                                                     |  | FIRST NAME<br>Darrin   |                                                             | MIDDLE NAME<br>D.                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | RESIDENCE & CITIZENSHIP | CITY<br>Irvine                                                                      |  | STATE<br>CA            |                                                             | COUNTRY OF CITIZENSHIP<br>U.S.A. |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | POST OFFICE ADDRESS     | STREET<br>1 Acropolis Aisle                                                         |  | CITY<br>Irvine         |                                                             | STATE<br>CA<br>ZIP CODE<br>92614 |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | FULL NAME OF INVENTOR   | LAST NAME                                                                           |  | FIRST NAME             |                                                             | MIDDLE NAME                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | RESIDENCE & CITIZENSHIP | CITY                                                                                |  | STATE                  |                                                             | COUNTRY OF CITIZENSHIP           |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | POST OFFICE ADDRESS     | STREET                                                                              |  | CITY                   |                                                             | STATE<br>ZIP CODE                |
| I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon. |                         |                                                                                     |  |                        |                                                             |                                  |
| SIGNATURE OF INVENTOR 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                         | SIGNATURE OF INVENTOR 2                                                             |  |                        | SIGNATURE OF INVENTOR 3                                     |                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                               |                         |  |  |                        |                                                             |                                  |
| DATE<br>8/17/00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                         | DATE<br>8/17/00                                                                     |  |                        | DATE                                                        |                                  |